Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

APPLICATION NUMBER	FILING DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO.
08/448,990	05/24/95	TANAKA Y	0649-0487P-S

EXAMINER	
ZITOMER, F	
ART UNIT	PAPER NUMBER
1505	8

15M2/0530

BIRCH STEWART KOLASCH & BIRCH
301 NORTH WASHINGTON STREET
PO BOX 747
FALLS CHURCH VA 22040-0747

DATE MAILED: 05/30/97

This is a communication from the examiner in charge of your application.
COMMISSIONER OF PATENTS AND TRADEMARKS

OFFICE ACTION SUMMARY

☒ Responsive to communication(s) filed on 11/13/96 & 3/11/97

☒ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 D.C. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1-4, 7-10 is/are pending in the application.
Of the above, claim(s) 7-10 is/are withdrawn from consideration.
☐ Claim(s) _____ is/are allowed.
☒ Claim(s) 1-4 is/are rejected.
☐ Claim(s) _____ is/are objected to.
☐ Claim(s) _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
☐ The specification is objected to by the Examiner.
☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☐ received.
☐ received in Application No. (Series Code/Serial Number) _____.
☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____.

☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☐ Notice of Reference Cited, PTO-892
☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____
☐ Interview Summary, PTO-413
☐ Notice of Draftperson's Patent Drawing Review, PTO-948
☐ Notice of Informal Patent Application, PTO-152

--SEE OFFICE ACTION ON THE FOLLOWING PAGES--

1.

Applicant's amendments and remarks of November 13, 1996 and March 11, 1997 are acknowledged. The rejection of record of claims 1-4 as being anticipated by Tanaka et al., EP-A-O 584 597, under 35 USC 102(b) is withdrawn in view of applicant's amendments. The rejection of record of claim 4 under 35 U.S.C. § 112, second paragraph, is maintained as stated below. The rejection of record of claims 5 and 6 under 35 U.S.C. § 103 as being unpatentable over Kondo et al., U.S. Patent 4,208,490, taken with Tanaka et al., EP-A-O 584 597 is maintained for claims 1-4 in view of applicant's amendments as stated below. No claim is allowed.

2.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3.

Claims 1-4 are rejected under 35 U.S.C. § 103 as being unpatentable over Kondo et al., U.S. Patent 4,208,490, taken with Tanaka et al., EP-A- O 584 597.

Kondo teaches enhancing the physical properties and appearance of natural rubber by grafting with methylmethacrylate (column 2, line 61 - column 3, line 49; column 4, lines 24-28)). Tanaka teaches deproteinized natural rubber having a nitrogen content below 0.02% by weight as stated above. The

deproteinization affords rubbers having improved physical properties comparable to those of synthetic rubbers (page 3, lines 1-11). Kondo differs from the claimed invention by failing to specify a deproteinized precursor rubber.

It would have been *prima facie* obvious to deproteinize rubber because Tanaka teaches the procedure to enhance physical properties and Kondo's precursor rubber which is the same as that of Tanaka would be expected to benefit in a like manner from the additive effect.

Applicant's arguments filed November 13, 1996 have been fully considered but they are not persuasive. The basis of said arguments is that Kondo fails to disclose producing a polymer having an improved graft ratio and graft efficiency while Tanaka is silent on grafting. However, the arguments are directed to what each individual reference teaches and not to what the combination as a whole suggests to one of ordinary skill in the art. The individual references themselves are not required to make a suggestion for the combination to be obvious. *In re Rosselet*, 146 USPQ 183 at 186. Nevertheless the following comments are deemed pertinent:

- the silence of Kondo with respect to graft ratio and graft efficiency lacks relevance because the embodiments are not recited in the present claims. While broadest reasonable interpretation consistent with the specification is given during

examination limitations not contained in the claims will not be read into them. *In re Prater*, 162 USPQ 541. Further in process claims the references and applicant do not require the same motivation to establish obviousness. In this regard it has been held that unexpected results do not outweigh expected results, *In re Nolan*, 193 USPQ 641 (CCPA 1977), and that the recognition of another advantage which would flow naturally by following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. *Ex parte Obiaya*, 227 USPQ 58,60.

- if Tanaka had disclosed grafting as required by applicant a rejection under section 102 would be in order.

- the key point remains that Kondo teaches the advantage of grafting natural rubber with the claimed monomers while Tanaka teaches the advantage of deproteinizing natural rubber. Clearly the claimed invention is a *prima facie* obvious combination of two embodiments known to enhance the properties of natural rubber.

4.

Claim 4 is rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claim is indefinite for not specifying the lower limit of detectability at 3280 cm^{-1}. All infrared spectrometers and/or

methods, in this case presumably FT-IR, have a lower limit of detectability at any given wavelength or frequency. Merely stating that there is no absorption at a given frequency is indefinite because the specific method and type of instrument are not given. If the intent of this claim is to establish a nitrogen level by a method more sensitive than Kjeldahl it is not deemed an undue burden on applicant to provide the sensitivity of said method so that one skilled in the art would be reasonably apprised of the scope of the claimed invention.

Applicant's arguments filed March 11, 1997 have been fully considered but they are not persuasive. The essence of said arguments is that one skilled in the art would associate the absence of an absorption band at 3280 cm^{-1} with deproteinized rubber. However, as noted in the rejection infrared spectrometers have lower limits of detectability. The absence of an absorption band merely indicates that a component associated with that band may or may not be present in amounts below the detectability level of the instrument. To overcome the present ground of rejection it would be necessary to state the lower level of detectability for the 3280 $^{cm-1}$ band or to set forth a percent transmittance value therefor, e.g. 100% transmittance.

5.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS**

ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for response to this final action is set to expire THREE MONTHS from the date of this action. In the event a first response is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event will the statutory period for response expire later than SIX MONTHS from the date of this final action.

6.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fred Zitomer whose telephone number is (703) 308-2461.

FRED ZITOMER
PRIMARY EXAMINER
GROUP 1500

fz
May 28, 1997